



Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,356	06/26/2001	Marcos Karnezos	CPAC 1013-1US	1673

22470 7590 04/28/2004

HAYNES BEFFEL & WOLFELD LLP
P O BOX 366
HALF MOON BAY, CA 94019

EXAMINER

NGO, NGAN V

ART UNIT	PAPER NUMBER
----------	--------------

2814

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Ngan Ngo

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

The amendment filed March 18, 2004 has been entered and made of record as paper no. 0304.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostoker et al (US-5,773,886, of record) in view of Barrow (US-6,146,921).

Rostoker discloses in figure 4 a semiconductor device package comprising a semiconductor device (420), a cap covering the entire upper surface of the semiconductor device (440), and a heat spreader (430) being entirely external to the cap. However, Rostoker did not mention about the molding process for the cap. Barrow teaches on lines 32-37 of column 2 that the cap can be formed by molding process to cover the entire semiconductor device. Therefore, it would have been obvious to one of ordinary skill in the art to use the molding process in Rostoker in order to cover the entire semiconductor device as taught by Barrow.

In re claims 14-17, Barrow further teaches the adhesive (30) used to attach the heat spreader to the mold cap. Therefore, it would have been obvious to one of ordinary skill in the art to use adhesive in Rostoker's device in order to attach the heat spreader to the mold cap.

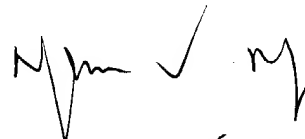
Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostoker et al in view of Barrow as applied to claims 1-11 and 14-17 above, and further in view of Johnson et al (US-6,288,900 B1, of record).

Johnson further discloses the heat spreader (22) in which a peripheral portion of the heat spreader is extended down to the substrate adjacent to the lower edges of the mold cap.

Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication should be directed to Examiner Ngan Ngo at telephone number (571) 272-1711. The fax number for the Art unit is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



~~Ngan Van Ngo~~
~~Primary Examiner~~

Ngan Van Ngo
Primary Examiner

Ngan Ngo

April 23, 2004